

## **What Is Claimed Is:**

1. An apparatus for delivering an electronic document, comprising of:
  - A. a sending device, which functions to send an electronic document;
  - B. at least one receiving device, which functions to receive the electronic document from the sending device; and
  - C. a network between said sending device and said at least one receiving device, functioning to allow said sending device to send a notification to said receiving device, and wherein said receiving device sends a notification to said sending device whereby said sending device forwards the electronic document to said receiving device.
2. The apparatus for delivering an electronic document as described in claim 1, wherein said sending device automatically records all notifications sent to and received from said receiving device, and whereby said receiving device automatically records all notifications sent to and received from said sending device.

3. The apparatus for delivering an electronic document as described in claim 1, wherein the network functions to allow said sending device to send a notification to a plurality of receiving devices, wherein each receiving device sends a notification to said sending device, and whereby said sending device waits for a notification, and whereby said sending device forwards the electronic document to the plurality of receiving devices in a single multicast transmission, and whereby said sending device automatically records all notifications sent to and received from said receiving device, and whereby said receiving device automatically records all notifications sent to and received from said sending device.

4. The apparatus for delivering an electronic document as described in claim 1, wherein said sending device waits for a time-out of collection of said notifications and forwards the electronic document to the plurality of said receiving devices in a single multicast transmission.

5. The apparatus for delivering an electronic document as described in claim 1, wherein the network functions to allow said sending devices to send a notification to said receiving device in a single multicast transmission, wherein each receiving device downloads the electronic document from said sending device, and whereby the sending device automatically records all notifications sent to and received from said receiving device, and each receiving device automatically records all notifications sent to and received from said sending device.

6. The apparatus for delivering an electronic document as described in claim 1, wherein the network functions to allow said sending device to send a document to said receiving device, wherein said receiving device sends a notification to said sending device, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

7. The apparatus for delivering an electronic document as described in claim 1, wherein the network functions to allow said receiving device to send a notification searching for said sending device, wherein said sending device replies with a notification of time when network capacity is substantially free to said receiving device, said receiving device then requests at the notified time directly to said sending device, whereby said sending device will forward the electronic document to said receiving device, and whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

8. The apparatus for delivering an electronic document as described in claim 1, wherein said receiving device is one of a community of receiving devices

9. The apparatus for delivering an electronic document as described in claim 8, wherein a single receiving device sends a notification searching for said sending device wherein the sending device replies with a notification of time when network capacity is free to said receiving device or the community of receiving devices, and said receiving device then requests at the notified time directly to said sending device, whereby the said sending device will forward the electronic document to the community of said receiving devices in a single multicast transmission, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

10. The apparatus for delivering an electronic document as described in claim 1, wherein said receiving device is not a member of a sending devices community

11. The apparatus for delivering an electronic document as described in claim 10, wherein said sending device sends a notification to said receiving device comprising a direct reference to become a member of a sending device community, wherein said receiving device executes the direct reference and becomes a member of said sending device community, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

12. An apparatus for automatic management and allocation of network traffic based on requests to use network capacity comprising of:

- A. a sending device, which functions to send an electronic document;
- B. a database which functions to store reservations for sending the electronic document;
- C. a channel manager, which comprises a plurality of algorithms which function to calculate a time to send the electronic document;
- D. at least one receiving device, which functions to receive the electronic document; and
- E. a network between said sending device and receiving devices, wherein transactions to send document transfers are managed through a channel manager and a bandwidth database, wherein said sending device automatically records all notifications sent to and received from said receiving device, and whereby said receiving device automatically records all notifications sent to and received from said sending device.

13. A method of delivering an electronic document, comprising of:

- A. a sending device, which functions to send an electronic document;
- B. at least one receiving device, which functions to receive the electronic document from the sending device; and
- C. a network between said sending device and said at least one receiving device, the network functioning to allow said sending device to send a notification to said receiving device, wherein said receiving device sends a notification to said sending device, whereby said sending device forwards the electronic document to said receiving device, whereby said sending device automatically records all notifications sent to and received from said receiving device, and whereby said receiving device automatically records all notifications sent to and received from said sending device.

14. The method of delivering an electronic document as described in claim 13, wherein the network functions to allow said sending device to send a notification to a plurality of receiving devices, wherein each receiving device sends a notification to said sending device, whereby said sending device waits for a notification, whereby said sending device forwards the electronic document to the plurality of receiving devices in a single multicast transmission, whereby said sending device automatically records all notifications sent to and received from said receiving device, and whereby said receiving device automatically records all notifications sent to and received from said sending device.

15. The method of delivering an electronic document as described in claim 13, wherein said sending device waits for a time-out of collection of said notifications and forwards the electronic document to the plurality of said receiving devices in a single multicast transmission.

16. The method of delivering an electronic document as described in claim 13, wherein the network functions to allow said sending devices to send a notification to said receiving device in a single multicast transmission, wherein each receiving device downloads the electronic document from said sending device, and whereby the sending device automatically records all notifications sent to and received from said receiving device, and each receiving device automatically records all notifications sent to and received from said sending device.

17. The method of delivering an electronic document as described in claim 13, wherein the network functions to allow said sending device to send a document to said receiving device, wherein said receiving device sends a notification to said sending device, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

18. The method of delivering an electronic document as described in claim 13, wherein the network functions to allow said receiving device to send a notification searching for said sending device, wherein said sending device replies with a notification of time when network capacity is substantially free to said receiving device for the purposes of transmission, said receiving device requesting the notified time directly to said sending device, said sending device forwarding the electronic document to said receiving device, and whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

19. The method of delivering an electronic document as described in claim 13, wherein said receiving device is one of a community of receiving devices

20. The method of delivering an electronic document as described in claim 19, wherein a single receiving device sends a notification searching for said sending device, the sending device replies with a notification of time when network capacity is free at least one receiving device, and said receiving device then requests the notified time directly to said sending device, whereby the said sending device will forward the electronic document to the at least one receiving device in a single multicast transmission, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

21. The method of delivering an electronic document as described in claim 13, wherein said receiving device is not a member of a community of sending devices.

22. The method of delivering an electronic document as described in claim 21, wherein said sending device sends a notification to said receiving device comprising a direct reference to become a member of a community of sending devices, wherein said receiving device executes the direct reference and becomes a member of community of sending devices, whereby said sending device automatically records all notifications sent to and received from said receiving device, and said receiving device automatically records all notifications sent to and received from said sending device.

23. A method for automatic management and allocation of network traffic based upon requests to use network capacity, the method comprising the steps of:

- A. a sending device functioning to send an electronic document;
- B. a database storing reservations;
- C. a channel manager comprising a plurality of algorithms calculating a time at which to send the document;
- D. at least one receiving device receiving the electronic document; and
- E. a network between said sending devices and said receiving devices, wherein all transactions for document transfers are managed through a channel manager and bandwidth database, said sending device automatically recording all notifications sent to and received from said receiving device, said receiving device automatically recording all notifications sent to and received from said sending device.